

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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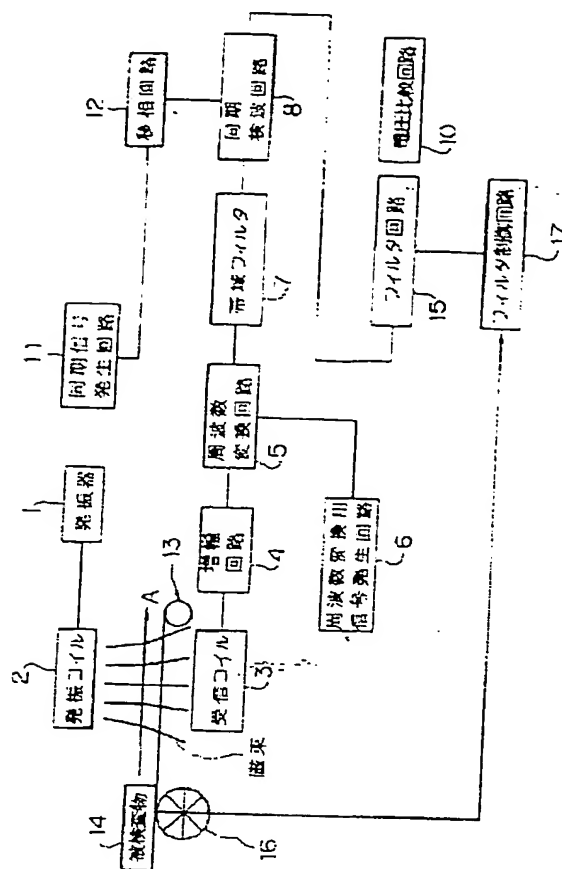
APPLICATION DATE : 28-01-92  
APPLICATION NUMBER : 04037225

APPLICANT : NIPPON CEMENT CO LTD;

INVENTOR : TOYAMA MASAOKI;

INT.CL. : G01V 3/10

TITLE : METAL DETECTOR



ABSTRACT : PURPOSE: To automatically keep metal detection sensitivity constant even when the feed speed of an object to be inspected changes.

CONSTITUTION: A metal detector is constituted so that an oscillation coil 2 is excited by a high frequency oscillator 1 to generate an alternating magnetic field and the high frequency of the signal obtained from the receiving coil 3 interlinked with the flux of the magnetic field is converted to other definite frequency and said signal is detected and further passed to obtain an output signal and the metal of an object 14 passing between the oscillation coil 2 and the receiving coil 3 is detected on the basis of the output signal. The filter is equipped with a variable bandwidth filter circuit 15, a speed detector 16 for detecting the speed of the object 14 to be inspected fed between the oscillation coil 2 and the receiving coil 3 and a filter control circuit 17 changing the bandwidth of the filter circuit 15 corresponding to the feed speed of the object 14 to be inspected on the basis of the speed signal from the speed detector 16.

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